

REMARKS/ARGUMENTS

Reconsideration of the subject application, amended as proposed, is respectfully requested.

Claims 1-11, and 13-20 are pending in the subject application. Claims 1, 2 and 3 are independent claims. Amendments to claims 1, 2 and 3 are proposed as follows:

Amendments are proposed for claim 1 as follows:

(1) To explicitly recite "first and second random access memories" – for which support can be found in the body of the original claim.

(2) To recite that the first random-access memory "is addressed by the m-bit corrected video signal" – for which support can be found, for example, in Fig. 5 (as described in paragraph 0042) of the published version of the subject application, which shows m-bit lines extending from rounding circuit block 6 to random access memory 33.

(3) To recite that the first random-access memory provides "a quantization error for the coarse quantization adjustment" – for which support can be found, for example, in Fig. 5 (as described in paragraph 0042) of the published version of the subject application, which shows m-bit lines extending from random access memory 33 to adder 36, and m-bit lines extending from rounding circuit block 6 extending to adder 36. In turn, adder 36 is shown providing an output to random-access memory 34.

(4) To recite that the second random-access memory "is addressed by the m-bit corrected video signal that has been modified by the quantization error for the coarse quantization adjustment" – for which support can be found, for example, in Fig. 5 (as described in paragraph 0042) of the published version of the subject application, which shows m-bit lines extending from random access memory 33 to adder 36, and m-bit lines extending from rounding circuit block 6 extending to adder 36. In turn, the output of adder 36 is shown applied to random-access memory 34.

Amendments are proposed for claim 2 as follows:

(1) To explicitly recite "first and second random access memories" – for which support can be found in the body of the original claim.

(2) To recite that "the first random-access memory provides a quantization error for the quantized most significant bits" – for which support can be found, for example, in Fig. 6 (as described in paragraph 0043) of the published version of the subject application, which shows $m-n+1$ bit lines extending from random-access memory 43 to adder 46.

(3) To recite that least significant bits "that have been adjusted by the quantization error for the quantified most significant bits" are quantized in the second random-access memory – for which support can be found, for example, in Fig. 6 (as described in paragraph 0043) of the published version of the subject application, which shows lines labeled "lsb" being applied to adder 46 and $m-n+1$ bit lines from random-access memory 43 being applied to adder 46, and the output of adder 46 being applied to random-access memory 44.

(4) To recite that the second random-access memory is addressed using the "adjusted" least significant bits – for which support can be found, for example, in Fig. 6 (as described in paragraph 0043) of the published version of the subject application, which shows lines labeled "lsb" being applied to adder 46 and $m-n+1$ bit lines from random-access memory 43 being applied to adder 46, and the output of adder 46 being applied to random-access memory 44.

Amendments are proposed for claim 3 as follows: To recite that "the gamma correction means provides gamma-corrected values that have been converted with non-equidistant values" – for which support can be found, for example, in Figs. 8 and 10 (as described in paragraphs 0052 and 0054, respectively) of the published version of the subject application, which shows non-equidistant values curve 82.

Claim rejections:

The Examiner has rejected claim 2 under 35 USC 103(a) as unpatentable over Van Dalfsen et al. (US 2001/0005186 A1) in view of Kwak et al. (USP 6,166,781).

The Examiner has rejected claims 1, 3, 5, 7, 17, 19 and 20 under 35 USC 103(a) as unpatentable over Van Dalfsen et al. (US 2001/0005186 A1) in view of Kwak et al. (USP 6,166,781), further in view of Tabata et al. (USP 6,342,950 B1).

The Examiner has rejected claims 4 and 6 under 35 USC 103(a) as unpatentable over Van Dalfsen et al. (US 2001/0005186 A1) in view of Kwak et al. (USP 6,166,781) and of Tabata et al. (USP 6,342,950 B1), and further in view of Okada et al. (USP 5,854,799).

The Examiner has rejected claims 8-11 under 35 USC 103(a) as unpatentable over Van Dalfsen et al. (US 2001/0005186 A1) in view of Kwak et al. (USP 6,166,781) and of Tabata et al. (USP 6,342,950 B1), and further in view of Lengyel (USP 5,661,428 B1).

The Examiner has rejected claims 13-16 and 18 under 35 USC 103(a) as unpatentable over Van Dalfsen et al. (US 2001/0005186 A1) in view of Kwak et al. (USP 6,166,781) and of Tabata et al. (USP 6,342,950 B1), and further in view of Adachi et al. (US 2004/0081266 A1).

The Examiner has advised (see Office Action, pages 17-18) that by better claiming the quantization process the current rejection may be overcome. Specifically, the Examiner has stated "It seems to the examiner that this process is different than Val Dalfsen's, particularly noted from Applicant's Figure 9 and 10. Claiming the noise details as shown in those figures would overcome the current rejection and pass the case to allowance." Applicant thanks the Examiner for those suggestions, and by the proposed amendments has attempted to better claim the quantization process.

More specifically, claim 1 is proposed to be amended to more clearly recite the quantization process in which the first random-access memory quantizes the m-bit correct video signal to provide an n-bit coarse quantization

adjustment and provides a "quantization error for the coarse quantization adjustment," and in which the m-bit corrected video signal is modified by that quantization error and is used to address the second random-access memory to provide a fine adjustment of the quantization. It is respectfully submitted that neither Van Dalfsen nor Kwak teaches or makes obvious such a quantization process.

Claim 2 is proposed to be amended to more clearly recite the quantization process in which the first random-access memory quantizes the most significant bits provides a "quantization error for the quantized most significant bits," and in which least significant bits are adjusted by that quantization error and are quantized in the second random-access memory that is addressed using the "adjusted" least significant bits. It is respectfully submitted that neither Van Dalfsen nor Kwak teaches or makes obvious such a quantization process.

Claim 3 is proposed to be amended to more clearly recite the quantization process in which "the gamma correction means provides gamma-corrected values that have been converted with non-equidistant values". It is respectfully submitted that neither Van Dalfsen nor Kwak teaches or makes obvious such a quantization process.

Applicant thanks the Examiner for providing a further explanation as to how the cited references are being applied to the claims. As understood, the Examiner asserts that Van Dalfsen teaches quantizing, while Kwak teaches a two stage LUT system which "uses the LSB and MSB," and that combining the two references will result in the subject matter being claimed. It is respectfully submitted that as to the claims in their form prior to proposed amendments, the Examiner has not sufficiently explained how that specific arrangement claimed would arise out of the combination of Van Dalfsen and Kwak. However, in order to advance the subject application toward allowance, the proposed amendments intended to more clearly recite the quantization processes being claimed. It is respectfully submitted that with the proposed amendments, independent claims 1, 2 and 3 are now even more clearly patentable over Van Dalfsen and Kwak.

It is also respectfully submitted, that dependent claims 4-11 and 13-20 are allowable, as being ultimately dependent from allowable independent claims 1, 2 or 3.

Conclusion

In view of the above, it is respectfully submitted that the application is now in condition for allowance. The Examiner's reconsideration, further examination, and indication of allowance of the subject application, are respectfully requested.

Respectfully submitted,

DLA Piper LLP (US)

Dated: September 7, 2010

By: /Gerald T. Sekimura/
Gerald T. Sekimura
Reg. No. 30,103
Tel.: (415) 836-2500

Attn.: Patent Department
DLA Piper US LLP
555 Mission Street, Suite 2400
San Francisco, CA 94108-2933